



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,487	04/14/2006	David Neville Davies	13871US/BAT018PA	2452
58503 7590 12/21/2010 STEVENS & SHOWALTER, L.L.P. BOX BAT 7019 CORPORATE WAY DAYTON, OH 45459-4238				
EXAMINER				
HOGAN, JAMES SEAN				
ART UNIT		PAPER NUMBER		
3752				
MAIL DATE		DELIVERY MODE		
12/21/2010		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/539,487

Applicant(s)

DAVIES ET AL.

Examiner

JAMES S. HOGAN

Art Unit

3752

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-46 and 49-67 is/are pending in the application.
- 4a) Of the above claim(s) 30-34, 38-42, 44 and 45 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-29, 35-37, 43, 46 and 49-67 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to the claims have been considered but are moot is still found to read upon the newly amended claims. As the function of Coffee '885 is to (paraphrasing) have (the needle tips) induce on them (the spray) a sufficient electrical potential of opposite sign to cause corona discharge from the needle tips onto the spray, thereby substantially reducing or even in some circumstances eliminating the charge on the spray, (Col. 3, lines 14-18), it can be surmised that the higher or lower magnitude potentials read into the claims is an inherent trait associated by electrostatic spraying, and therefore anticipated by Coffee '885. Further, any drawback associated with the Coffee '885 device (wetting of the ring, as argued) has little to do with the structure of the device, and is therefore a moot argument.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 22-25, 29, 35, 43, 46, 54-56, and 63-67 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,962,885 to Coffee et al.

As per claim 22 and 25, Coffee et al discloses in Figure 2, means for supplying liquid (from (8)) to an outlet ((9) and beyond to (15)), an electrical discharge means ((11), (10)) including means (10) for coupling the electrical discharge means to a second higher potential

(from (11)) and for coupling the outlet ((9 and beyond to (15)) to a first, different, lower potential for causing an electric field to be generated at said outlet to produce a dispersion of aroma-providing droplets (disclosed is a use for crop spraying, which, by default can have an odor to it) from liquid issuing from the outlet and for producing at the electrical discharge means ions to at least partially electrically discharge the dispersion 9Col. 3, lines 13-18), wherein the outlet is coupled to said first potential via a resistance ((col. 4, lines 59-69)), the coating of the electrode being what supplies the resistance, the resistance as part of .

As per claim 23, the coupling means, as cited, include a couple to earth (See Figure 2).

As per claim 24, the electrical discharge means (11) is shown, via (10) which is positive with respect to the first potential

As per claim 29, as shown in Figure 2, then electrical discharge means (11) surround the liquid outlet (See Figure 2, above (8)).

As per claim 35, a resistance couples the outlet to a first potential (at ground, see Figure 2)

As per claim 43, a control is disclosed (4) for enabling the device to be activated in a predetermined manner by a user.

As per claim 63, the device of Coffee et al is disclosed as being hand carryable (Col. 1, line 25).

As per claims 64 and 65, Coffee discloses the use of its device with insecticides or insect repellent, as it is common to use such for "crop spraying" (Col. 4, line 51).

As per claims 64-67, Coffee et al teaches its device being used with olfactory stimuli and suppressants (Col. 1, lines 5-9).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 26, 27, 37, 56, 60 and 62 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,962,885 to Coffee.

3. The rejection of claim 22 serves as the basis for the following.

4. As per claims 26, 27, 37, 49, Coffee is silent as to the resistance of a ground resistor , however it would have been obvious to one having ordinary skill in the art at the time the invention was made to have substituted a component resistor of the desired resistivity range, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering a workable range involves only routine skill in the art and engineering logic.

3. As per claim 56, a flexible reservoir is not taught, however, as the depicted bottle could be made of a flexible material not unlike poly-styrene or another form of plastic, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have made the bottle of a material that is even remotely flexible, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice and engineering logic.

5. As per claim 60 and 62, there is no teaching of the device of Coffee et al being placed on a tabletop or in use with a motor vehicle, however, as the device is disclosed as being hand carryable by a person (Col. 1, line 25), such that it would have been obvious to one

having ordinary skill in the art at the time the invention was made to have placed the device of Coffee et al on a surface after its use, on a table or in the interior of a known motor vehicle.

6. Claims 46, 54 and 55 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,962,885 to Coffee in view of U.S. Patent No. 6,684,879 to Coffee.

7. The rejection of claim 43 above serves as the basis for the following. As per claims per claims 46, 54, and 55 Coffee ('885) does not explicitly teach multiple liquids. However Coffee ('879) teaches in the embodiment shown in Figure 11 a plurality of liquids (8) and means for controlling the liquids at different times, as a delay (120) is schematically coupled to only one pump and reservoir. As the Coffee ('885) teaches the original basis of spraying the fluids electrostatically, and Coffee '885 provides the motivation for the use of multiple liquids, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the device of Coffee ('879) to perform with multiple liquids as taught by Coffee ('885).

8. Claims 28, 36, 49-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee in view of U.S. Patent 5,655,517 to Coffee.

9. The rejection of claim 22 serves as the basis for the following.

10. As per claims 28, 36 and 49-53 Coffee ('885) teaches all the limitations of the claims except for qualifying the resistance of the liquid in the use of an electrostatic sprayer, that resistance being variable. However, Coffee ('517) discloses (Col. 2, line 56-58) such a use, with the resistance being variable (as per claim 50), by nature, based on the amount of liquid available in a reservoir, with no liquid providing zero resistance. Any liquid added, making the resistance greater than zero. Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with a resistance

measurement as suggested by Coffee. Doing so would provide more precise spraying and because the Coffee ('885) reference and the Coffee ('519) reference are known work in one of field of endeavor.

11. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,684,879 to Coffee et al in view of U.S. Patent No. 4,095,596 to Grayson.

12. The rejection of claim 56 above serves as the basis for the following.

13. Coffee et al teaches all the limitations of the claims except for a frangible seal with a reservoir. However, Grayson discloses a frangible ampoule or reservoir (See Abstract).

Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with a single use frangible reservoir as suggested by Grayson.

Doing so would provide a fully disposable and/or recyclable system.

14. Claim 58, 59 and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,962,885 to Coffee et al in view of U.S. Patent No. 6,602,475 to Chiao.

15. The rejection of claim 22 serves as the basis for the following.

16. As per claims 58, 59, and 61 there is no teaching by Coffee et al for the use of its device in combination with a various multimedia systems. Chiao teaches scent dispersion by electrostatic means in combination with a barcode reader (Col. 5, line 55-64) as well as with a home entertainment system by way of DVD's and personal computers (i.e. internet) (Col. 8, lines 50-61). Therefore, it would have been obvious to one having ordinary skill in the art to have provided the device of Coffee et al with various multimedia combinations as suggested by Chiao. Doing so would provide an improved multimedia experience and such modification is merely the use of known technique to improve a similar device by Applicant and (c) such

modification, i.e. choosing from a finite number of predictable solutions, is not of innovation but of ordinary skill and common sense and engineering logic

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. HOGAN whose telephone number is (571)272-4902. The examiner can normally be reached on Mon-Fri, 7:30a-4:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. H./
Examiner, Art Unit 3752
12.13.10

/Dinh Q Nguyen/
Primary Examiner, Art Unit 3752